WHAT IS CLAIMED IS:

1. An injection mold for encapsulating an integrated circuit chip so as to form a semiconductor package containing the chip, said injection mold comprising:

at least one injection cavity for housing the chip; and

an insert having a front part that forms part of the wall of the injection cavity and a transverse surface that lies parallel to one face of the chip,

wherein the transverse surface of the insert has a roughness that is chosen such that the face of the semiconductor package has a suitable roughness in a region corresponding to the transverse surface of the insert.

2. The injection mold according to claim 1, wherein the insert protrudes into the interior of the injection cavity so as to form a hollow in the package in the region corresponding to the transverse surface of the insert.

3. The injection mold according to claim 2, further comprising a blind annular space around at least a part of the insert that emerges in the injection cavity.

4. The injection mold according to claim 1, wherein the front part of the insert has a protruding transverse surface surrounded by an annular shoulder that is set back with respect to the protruding transverse surface.

5. The injection mold according to claim 4, further comprising a blind annular space around at least a part of the insert that emerges in the injection cavity.

6. The injection mold according to claim 1, further comprising a blind annular space around at least a part of the insert that emerges in the injection cavity.

7. The injection mold according to claim 6, wherein the annular space is enlarged in a part remote from the injection cavity.

8. The injection mold according to claim 1, further comprising:

first and second parts between which the injection cavity is defined,

wherein the first part carries the insert in such a way that the transverse surface of the inverse lies parallel to the parting line of the first and second parts, and

the second part is provided with at least one movable demolding member opposite the insert and means for keeping the demolding member bearing on the package when the second part of the mold is separated from the first part of the mold during demolding.

9. The injection mold according to claim 8, wherein the first part of the mold includes pushers for demolding the package.

10. A semiconductor package comprising:

an encapsulation block having a transverse face; and

at least one integrated circuit chip contained in the encapsulation block, one face of the chip including an optical sensor and lying parallel to the transverse face of the encapsulation block,

wherein the material of the encapsulation block that encapsulates the chip is transparent, and

the transverse face of the encapsulation block includes a region located opposite the optical sensor that has a roughness that is less than the roughness of at least the rest of the transverse face of the encapsulation block.

11. The semiconductor package according to claim 10, wherein the region at least covers the optical sensor of the chip.

12. The semiconductor package according to claim 10, wherein the roughness of the region is less than 0.10.

13. The semiconductor package according to claim 10, wherein the roughness of the region is less than 0.07.

14. An information processing system including at least one optical semiconductor package, said optical semiconductor package comprising:

an encapsulation block having a transverse face; and

at least one integrated circuit chip contained in the encapsulation block, one face of the chip including an optical sensor and lying parallel to the transverse face of the encapsulation block,

wherein the material of the encapsulation block that encapsulates the chip is transparent, and

the transverse face of the encapsulation block includes a region located opposite the optical sensor that has a roughness that is less than the roughness of at least the rest of the transverse face of the encapsulation block.

15. The information processing system according to claim 14, wherein the region of the transverse face of the encapsulation block of the optical semiconductor package at least covers the optical sensor of the chip.

16. The information processing system according to claim 14, wherein the roughness of the region of the transverse face of the encapsulation block of the optical semiconductor package is less than 0.10.

17. The information processing system according to claim 14, wherein the roughness of the region of the transverse face of the encapsulation block of the optical semiconductor package is less than 0.07.